HU-25A Guardian #524 09/06/16

Aircraft:
HU-25A Guardian #524 (See full schedule)
Flight Number:
OIB 2016 on HU-25 #24
Payload Configuration:
ATM
Nav Data Collected:
No
Total Flight Time:
3.5 hours
Submitted by:
Richard Yasky on 09/06/16
Flight Segments:

From:	BGSF	**To:**	BGSF
Start:	09/06/16 10:15 Z	**Finish:**	09/06/16 13:46 Z
Flight Time:	3.5 hours		
Log Number:	16F003	**PI:**	Nathan Kurtz
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
Purpose of Flight:	Science		
Comments:	Northwest Coastal A route flown at FL 270-280 with approximately 60-65% coverage due to multiple layers of clouds on the southern legs. Even with multiple layers there were a few isolated holes down to the icecap. Ramp pass conducted at the maximum possible altitude of 4000 MSL due to ragged bases and isolated showers in the vicinity of BGSF>		

Flight Hour Summary:

	16F003
Flight Hours Approved in SOFRS	121.25
Total Used	126.9
Total Remaining	-5.65

16F003 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
06/29/16	OIB 2016 on HU25A ICF	Science	2	2	119.25
07/11/16	OIB 2016 on HU25A #1	Ferry	2.6	4.6	116.65
07/11/16	OIB 2016 on HU25A #2	Ferry	2.5	7.1	114.15
07/11/16 - 07/12/16	OIB 2016 on HU25A #3	Ferry	2.2	9.3	111.95
07/12/16 - 07/13/16	OIB 2016 on HU25A #4	Ferry	2.6	11.9	109.35
07/13/16	OIB 2016 on HU25A #5	Science	3.4	15.3	105.95
07/14/16	OIB 2016 on HU25A #6	Science	3.5	18.8	102.45
07/15/16	OIB 2016 on HU25A #7	Science	3.7	22.5	98.75
07/19/16 - 07/20/16	OIB 2016 on HU25A #8	Science	3.6	26.1	95.15
07/20/16	OIB 2016 on HU25A #9	Science	3.4	29.5	91.75
07/21/16	OIB 2016 on HU25A #10	Science	3.6	33.1	88.15

07/22/16	OIB 2016 on HU25A #11	Ferry	3.9	37	84.25
07/22/16	OIB 2016 on HU25A #12	Ferry	3.2	40.2	81.05
07/22/16	OIB 2016 on HU25A #13	Ferry	2.1	42.3	78.95
08/23/16	OIB 2016 on HU-25 #14	Science	2.3	44.6	76.65
08/25/16	OIB 2016 on HU-25 #15	Ferry	3.2	47.8	73.45
08/25/16	OIB 2016 on HU-25 #16	Ferry	2.2	50	71.25
08/27/16	OIB 2016 on HU-25 #17	Science	3.7	53.7	67.55
08/29/16	OIB 2016 on HU-25 #18	Science	3.8	57.5	63.75
08/29/16	OIB 2016 on HU-25 #19	Science	3.5	61	60.25
09/01/16	OIB 2016 on HU-25 #20	Science	3.4	64.4	56.85
09/02/16	OIB 2016 on HU-25 #21	Science	3.8	68.2	53.05
09/02/16	OIB 2016 on HU-25 #22	Science	3.8	72	49.25
09/05/16	OIB 2016 on HU-25 #23	Science	0.6	72.6	48.65
09/06/16	OIB 2016 on HU-25 #24	Science	3.5	76.1	45.15
09/09/16	OIB 2016 on HU-25 #25	Science	3.5	79.6	41.65
09/09/16	OIB 2016 on HU-25 #26	Science	3.5	83.1	38.15
09/10/16	OIB 2016 on HU-25 #27	Science	3	86.1	35.15
09/11/16	OIB 2016 on HU-25 #28	Science	3.9	90	31.25
09/11/16	OIB 2016 on HU-25 #29	Science	3.7	93.7	27.55
09/12/16	OIB 2016 on HU-25 #30	Science	3.3	97	24.25
09/12/16	OIB 2016 on HU-25 #31	Science	2.7	99.7	21.55
09/13/16	OIB 2016 on HU-25 #32	Science	4	103.7	17.55
09/13/16	OIB 2016 on HU-25 #33	Science	2.9	106.6	14.65
09/15/16	OIB 2016 on HU-25 #34	Science	3.7	110.3	10.95
09/16/16	OIB 2016 on HU-25 #35	Ferry	2.4	112.7	8.55
09/16/16	OIB 2016 on HU-25 #35	Ferry	1.7	114.4	6.85
09/16/16	OIB 2016 on HU-25 #35	Ferry	1.7	116.1	5.15
09/17/16	OIB 2016 on HU-25 #38	Ferry	2.8	118.9	2.35
09/17/16	OIB 2016 on HU-25 #38	Ferry	2.9	121.8	-0.55
09/19/16	OIB 2016 on HU-25 #40	Ferry	2.5	124.3	-3.05

09/19/16	OIB 2016 on HU-25 #40	Ferry	2.6	126.9	-5.65

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

OIB - HU-25C Guardian #524 09/06/16 Science Report

Mission:
OIB
Mission Summary:

Mission: Falcon Northwest Coastal A (priority: high)

This mission combines portions of the 2016 Northwest Coastal A and Umanaq B missions, specifically the westernmost two lines from both flights. We removed the northernmost portions of the lines in order to keep the mission within the range of the Falcon. These lines are completed by the companion ?Falcon Northwest Coastal B? mission.

Southern Greenland's weather this morning was influenced by a strong low pressure system centered near Kangerlussuaq, and by the Iceland Low, which is currently situated in the Denmark Strait just off the southeast Greenland coast. This one-two meteorological punch completely covered the southern half of Greenland in clouds. However, morning satellite imagery showed a narrow but clear stretch of coastline between Upernavik and Thule. So we selected this mission for this morning, knowing that we would probably lose the southern portions of the lines to clouds, but reasoning that these would be relatively easy to pick up during a later "mop-up" mission. That was indeed the case - the southern portions of the mission, between the Umanaq and Nuussuaq Peninsulas, were clouded, but we enjoyed completely clear skies from the vicinity of Upernavik and to the north.

We experienced a what appeared to be a temporary failure of our primary science GPS receiver (Javad-00k3), a few minutes after our 180 degree turn south midway through the flight. The receiver exhibited a behavior we have not observed before, with both indicator lights showing solid red. This particular receiver was also providing the 1 PPS timing signal to the ATM data system, so the end result was that we lost about 4 minutes of ATM data during this period. We resolved the problem by power-cycling the receiver, and it came up normally after the power cycle. The backup receiver functioned normally and thus we do not believe any major GPS outages occurred during the flight. We will continue to investigate the root cause of the failure and act accordingly to prevent a recurrence. All instruments performed well, otherwise.

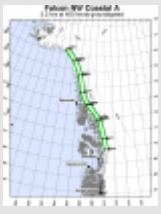
We conducted a ramp pass over Kangerlussuaq at 4000' prior to landing.

Data volumes:
CAMBOT: 12 Gb images
Narrow Swath ATM: 23 Gb
FLIR: 7.0 Gb

total data collection time: 3.1 hrs

Images:

Map of Falcon - Northwest Coastal A



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Submitted by:
John Sonntag on 09/06/16

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